

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: Jeffamine DA BRSA

Assessor:

ENVIRONMENTAL RELEASES

Scenario#:1

Number of Release Sites: 1.

Release Activity:

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
Total Releases:	8.00 (kg/yr)	N/A (kg/yr)	0.11 (kg/yr)	0.00 (kg/yr)
Non-sludge/Sludge				
Release Days/yr:	50.00	0.00/0.00	50.00	0.00
Per Site Release:	0.16 (kg/site/day)	N/A/0.00 (kg/site/day)	2.26E-03 (kg/site/day)	0.00 (kg/site/day)

Remarks:

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SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES: LAKES, BAYS, ESTUARIES, AND OCEANS		
SCENARIO #: 1	RELEASE ACTIVITY:	
FACILITY NAME: BAYSHORE REGIONAL SA		
FACILITY LOCATION: UNION BEACH NJ 07735		
RECEIVING WATER NAME: ATLANTIC OCEAN		
REACH NUMBER: 02030104014	FACILITY ON REACH: Unk	DISCHARGE TYPE: Direct
NPDES PERMIT #: NJ0024708	EXPOSED POPULATION: Adult	

WWT REMOVAL (%)	RELEASE DAYS	PLANT FLOW (MLD)	PRETREAT RELEASE (kg/site/day)	POST-TREAT RELEASE (kg/site/day)	BCF (L/kg)
21.98	50.	25.92	0.16	0.12	3.16

AQUATIC EXPOSURE ESTIMATES		
MIXING ZONE	DILUTION FACTOR	WATER CONCENTRATION (ug/L)
ACUTE SCENARIO	23.90	0.20
CHRONIC SCENARIO	65.00	7.41E-02

FISH INGESTION EXPOSURE ESTIMATES					
Exposure Units	Results	ASSUMPTIONS			
		ED (years)	AT (years)	BW (kg)	IR (g/day)
Cancer					
LADD _{pot} (mg/kg/day)	1.27E-09	33.00	78.00	80.00	7.50
LADC _{pot} (mg/kg)	1.36E-05	33.00	78.00	NA	NA
Acute					
ADR _{pot} (mg/kg/day)	2.22E-06	NA	1 day	80.00	279.00

Lakes Comments:

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INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO #: 1 RELEASE ACTIVITY:

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites:	1.
Per Site Fugitive Release:	NA kg/site/day
Fugitive Release Days per Year:	NA days
% Removal via Fugitive Release:	0.00 %
Total Fugitive Release:	NA kg/yr
Max Annual Average Air Concentration (Fugitive):	0.00 $\mu\text{g}/\text{m}^3$
Max 24 Hour Average Air Concentration(Fugitive):	0.00 $\mu\text{g}/\text{m}^3$
Per Site Stack Release:	2.26E-03 kg/site/day
Stack Release Days per Year:	50.00 days
% Removal via Stack Release:	90.00 %
Total Stack Release:	0.11 kg/yr
Max Annual Average Air Concentration (Stack):	4.17E-05 $\mu\text{g}/\text{m}^3$
Max 24 Hour Average Air Concentration (Stack):	1.52E-03 $\mu\text{g}/\text{m}^3$

Exposure Units	Results (Stack)	Results (Fugitive)	ASSUMPTIONS			
			ED (years)	AT (years)	BW (kg)	Inh. Rate (m³/hr)
Cancer						
LADD _{pot} (mg/kg/day)	3.23E-09	0.00	33.00	78.00	80.00	0.61
LADC _{pot} (mg/m³)	1.76E-08	0.00	33.00	78.00	NA	NA
Acute						
ADR _{pot} (mg/kg/day)	2.78E-07	0.00	NA	1 day	80.00	0.61

Inhalation Comments: Stack release is from sludge incineration. Quantity of sludge is $0.156 \times 1.45\% = 2.26\text{E-}3$ kg/site /d. Assuming 90% removed during the process.

Stack Parameter Data

Stack Height	10.00	m
Inside Stack Diameter:	0.10	m
Stack Gas Exit Velocity:	0.10	m/sec
Stack Gas Temperature:	293.00	K

Fugitive Parameter Data

Release Height:	N/A
Length of Release Opening:	N/A
Width of Release Opening:	N/A

Meteorological and Terrain Information:

Surrounding Land Use:	Rural
Terrain Height:	0.00 m
Distance to Residence of Interest:	100.00 m
Meteorological Class:	Full
Stability Class:	NA
Wind Speed:	NA

Downwash Information:

Facility Length:	NA m
Facility Width:	NA m
Facility Height:	NA m